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THE COMMUNITY ECONOMIC IMPACT OF COASTAL BUSINESS

by

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Introduction

I will focus primarily on coastal businesses in rural communities. I will exclude urban areas and urban coastal businesses. Rural communities have lost the farm base of support needed to maintain a set of service industries (GLC 1987). Coastal communities in rural areas have lost not only the farm base needed to support their service sectors, but where applicable have also lost or will lose the commercial fishery base to modernization or to aquaculture. What will replace these activities? Many rural communities will disappear. Because of the attraction of coastal activities, rural coastal communities have opportunities to develop as tourist communities, as bedroom or residential communities, as retirement communities, etc.

What is the value of a community? Can this question be made comparable to the question "What is the value of a natural resource?", or more broadly "What is value of stewardship?" of natural resources? Economists use benefit/cost analysis as a primary analytical technique, discounting future benefits to the present, reaching conclusions on the basis of the "Pareto criteria" or the "potential Pareto criteria". They even attempt to allocate value based on the existence of a resource. Consumer sovereignty reigns, but not with respect to places to live and work. Communities are considered perfectly substitutable and people are assumed to be able to move from one place to another without cost.

But how does one value the existence and continuation of a community? Local residents place implicit values on their communities by the wages and other sacrifices they accept in order to remain in the community. I have

argued elsewhere (Hushak 1987) that there is a producer surplus attributable to communities similar to the consumer surplus we attribute to the resources and output of communities. Local politicians are considerably more interested in the jobs and income generated by economic activities than they are in the satisfaction gained by consumers of the goods and services produced by these activities. Yet, economists and other social scientists have done little to examine the value of communities. Philosophers, theologians, and ecologists are awakening to the issues involved, but at present have little to offer but to be unhappy with the way economists treat resources and communities (see for example Himes and Himes 1990 and Conroy 1990).

I will focus my remarks on three items. First, I want to briefly discuss what we know of the aggregate contribution of coastal enterprises to the U.S. economy. Second, I want to discuss how economic sectors and firms are linked within economic regions, the smallest of which is a local municipality or community. Finally, I will discuss a set of issues which are important in making coastal communities better places for coastal businesses.

Aggregate Contributions of Coastal Enterprises

Pontecorvo (1980) develops the concept of an ocean sector, excluding the Great Lakes:

> As a first approximation, we define ocean sector product as the aggregate factor payments of those establishments within the 66 GPO (gross product originating) sectors that either utilize an ocean resource in a productive process (supply-side criterion), or exist because the demand for the establishment's final output is due to

some attribute of the ocean (demand-side criterion) (Pontecorvo et al 1980).

He estimates that this ocean sector contributed about 2.5 percent of GNP to the U.S. economy in 1972 and 1987 (Pontecorvo 1980 1987). Excluded are all coastal business which do not use an ocean resource or require some attribute of the ocean in order to produce their output. Also excluded are contributions of the Great Lakes.

In Tables 1 and 2, I present estimates of the total contribution of Lake Erie marinas to Ohio's North Coast in 1986 (Hushak and Lichtkoppler 1988). These marinas provided over 3,300 full-time equivalent jobs with an estimated payroll in excess of $36 million. Total sales were estimated at $342 million, which generated value-added of $151 million.

Micro Linkages between Coastal Businesses and Communities

In our analysis (Hushak and Lichtkoppler 1988), we subdivided marinas on the basis of sales into three groups: $0-99,000, $100,000-699,000, and $700,000 and over. In Table 3, I present mean sales, employment, payroll and activities of the medium and large sized groups. A large marina means an estimated 22 full-time equivalent jobs with a payroll of $320,000 to a community. Aggregate linkages between marine trades, charterfishing and the rest of a Northern Ohio economy are shown in Table 4 (Hushak 1987).

Issues in Need of Attention

In this final section of my paper, I discuss some major issues affecting the business climate in rural coastal communities under five major headings: 1) rural data, 2) export tourism, 3) dependence on fishing, 4) industry

structure, and 5) allocation of shoreline space. These issues in turn affect the community impact of the coastal business.

Rural Data

Data availability is more restricted in rural than in urban areas for two reasons. First, many rural counties are small and data cannot be published on many items because of disclosure violations. Additionally, in comparison to urban areas, data is published for Metropolitan Statistical Areas (MSAs), while there is no rural counterpart. A recent resolution (Table 5) adopted by the American Agricultural Economics Association (AAEA) supports Rural Statistical Areas (RSAs). Data by RSA would overcome many disclosure problems where data for regions is preferable to no data at all. A companion resolution on environmental monitoring is in Table 6. Environmental data is critical to many coastal communities.

Another issue of importance is the level of disaggregation of data for service industries as compared to agriculture and manufacturing. Most of the coastal businesses about which we are concerned are service industries.

Export vs Local Industries

The growth and development of most coastal economies will depend on their ability to sell their services to non-residents, i.e., to become export economies. The critical feature of an export economy is the bringing in of outside dollars to support the local economy. Agriculture and manufacturing bring in outside dollars through the production of product which is sold outside the region. Service industries become export industries when they

bring in tourists or keep local residents from recreating outside of the local area, or when they attract retired persons who receive pensions.

Resource Dependent Tourism

In the early stages of development, tourist economies are frequently dependent on some unique resource. For example, early development of the Eastern Shore of Maryland was dependent on the striped bass, and early development of Ohio's North Coast was dependent on the walleye. As the recreational economy develops and complementary activities grow, the single resource dependence diminishes.

The Eastern Shore survived the decline of the striped bass, although I have not seen studies in which losses in economic value or economic activity may have been estimated. I am currently proposing to examine the dependence of Ohio's North Coast on the walleye (Hushak 1990). There are several serious threats to the Lake's walleye population, including exotic species (Zebra Mussel, Bythotrephes, and white perch), overexploitation of walleye stocks, and toxic wastes. The disposal of plastics and other polluting substances are also serious problems at Lake Erie.

Industry Structure

A decision to encourage export tourism may have positive or negative consequences for local businesses. It will be the larger, more prosperous businesses which most quickly take advantage of new opportunities. If the local community is successful in developing tourism, in attracting retired persons, or in becoming a residential community, holders of financial resources from outside the community will become interested in investing in businesses

within the community. Local control of development and of the economy will likely be lost, or at least diluted, to outside interests. Is this what you want for your community? Table 7 shows what happened to the distribution of marinas by sales on Ohio's North Coast between 1979 and 1986 (Hushak and Lichtkoppler 1988). All of the growth in sales appears to have been captured by the largest of marinas, with the smaller ones experiencing no increase in sales over this period.

Allocation of Shoreline Space

As the economy of a coastal community grows, the value of increasingly limited shoreline space increases. The allocation of this limited space to alternative activities or uses becomes increasingly critical. Of particular importance is to protect those uses on which the developing economy is dependent, such as wetlands, open space, or public access. Alternative uses can be classified into public and private uses. Public uses include wetlands, parks, beaches, boat ramps, shore fishing, municipal water and ports and harbors. Private uses include marinas, private residences and condominiums, private clubs, restaurants, hotels, industry, and electric generating companies.

Concluding Comments

In conclusion, I urge us not to forget the community in looking at impacts of coastal firms. The success of any coastal community depends not only on the success of individual businesses, but on the joint success of all business and government units in establishing a dynamic business climate. Increased taxes for infrastructure development will frequently be good investments for the

coastal firm because the appropriate objective function of the firm is maximum profits, not minimum taxes.

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TABLE 1

Table 7. Employment grouped by type of job and payroll for Lake Erie marinas, 1986.

Group	Number	Full-time equivalent
Full-time jobs		
(N)[a]	(95)	
Industry	2,117	2,117.0
Mean	5.5	
Standard deviation	+9.5	
Seasonal full-time jobs		
(N)	(89)	
Industry	1,670	918.5
Mean	4.4	
Standard deviation	+7.6	
Seasonal part-time jobs		
(N)	(77)	
Industry	1,134	311.9
Mean	3.0	
Standard deviation	+4.6	
Total jobs	4,921	3,347.4
Payroll		
(N)	(76)	
Industry	$36,415,654	
Mean	$ 90,080	
Standard deviation	+ 157,190	

[a]N = number of responses upon which the estimate is based.

TABLE 2

Table 8. Computation of value added by Lake Erie marinas from industry sales and expenses, 1986.

Category	Sales/expenses ($)	Value added ($)
Marina industry sales	342.4×10^6	
Marina industry expenses	292.2×10^6	
Intermediate inputs[a]	68.4×10^6	
Purchased services[b]	122.7×10^6	
Value added expenses[c]		101.1×10^6
Sales less expenses		
Net industry profit		50.2×10^6
Total value added		151.3×10^6

[a]Intermediate inputs include boat sales (costs), fuel/oil, supplies and other (Table 4) with a total of 23.4 percent of expenses.

[b]Purchased services include advertising, equipment maintenance, insurance, new construction, facility maintenance and utilities (Table 4) with a total of 42.0 percent of expenses.

[c]Value added expenses include rent, taxes, labor and management (Table 4) with a total of 34.6 percent of expenses.

TABLE 3

Table 11. Characteristics of a typical medium-sized and large-sized marina.

	Medium	Large
Sales ($)	300,000	3.7×10^6
Employment (persons)		
Full-time	3	15
Part-time	8-10	13-17
Payroll ($)	85,000	320,000
Services	Slips Storage Repairs Fuel	Boat sales Repairs Slips Storage

TABLE 4

Table 1.--Transactions flow table for regional economy of northern Ohio along Lake Erie (1978), simplified from Hushak et al. (1984a). Fisheries-related sectors are highlighted. Values are sales ($000s) from the sectors in the left column to the same or other sectors.

	Processing sectors					
Sectors	Marina services	Charter fishing	Commercial fishing	All other	Final demand sector	Total output
Processing						
Marina services	17,827	1,144	0	26,525	46,494	91,990
Charter fishing	201	23	0	530	1,285	2,039
Commercial fishing	0	0	77	2,482	0	2,559
All other	27,910	166	870	64,302,423	85,277,842	149,609,211
Primary input						
Labor	19,352	682	1,510	76,300,698		
Imports	26,700	24	102	8,976,553		
Total inputs	91,990	2,039	2,559	149,609,211		149,705,800

TABLE 5

REVISED
OCTOBER 9, 1989

RESOLUTION FROM THE
ECONOMIC STATISTICS COMMITTEE
AMERICAN AGRICULTURAL ECONOMICS ASSOCIATION

WHEREAS there is a large and increasing demand for small area data as revealed by the Survey on Priorities for Data on Agriculture and Rural Areas and other sources, and

WHEREAS this increasing demand for data is brought about by the growing concern about a wide array of issues concerning rural viability, and

WHEREAS many data items available for urban counties cannot be published for rural counties because of disclosure rules, and

WHEREAS there exists a set of defined urban areas called Metropolitan Statistical Areas (MSAs), and

WHEREAS the MSA concept is transferable to rural counties,

BE IT RESOLVED THAT appropriate Federal statistical agencies be given the responsibility and the financial resources to define Rural Statistical Areas (RSAs), which are groups of counties similar in concept to MSAs, covering rural counties of the United States. Each RSA should encompass in so far as possible an economic trading area, be small enough to be of use in local analysis and planning, and yet be of sufficient size that data can be compiled for the RSA without disclosure violations.

TABLE 6

REVISED
OCTOBER 9, 1989

RESOLUTION FROM THE
ECONOMIC STATISTICS COMMITTEE
AMERICAN AGRICULTURAL ECONOMICS ASSOCIATION

WHEREAS there is a large and growing concern about the lack of systematic monitoring of key aspects of the natural environment as revealed by the Survey on Priorities for Data on Agriculture and Rural Areas and other sources, and

Whereas this is a result of increasing public awareness of the importance of environmental quality and natural resources as evidenced by regulations of ground and surface water quality from a variety of point and nonpoint sources of pollution,

BE IT RESOLVED THAT appropriate Federal statistical agencies be given the responsibility and the financial resources to establish an ongoing and coordinated system of key indicators of environmental quality and the natural resource base.

TABLE 7

Table 2. Gross sales levels for Lake Erie marinas in 1982 and 1986.

Sales level ($)	Number of respondents 1979	1986
0-24,999	24	25
25,000-99,999	22	22
100,000-299,999	19	20
300,000-699,999	11	12
700,000-999,999	4	4
1,000,000-1,999,999	11	3
2,000,000-up	7	14
Total	98	100